



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,671	08/15/2000	Tse Huang Choo	B-3988-618126	1803

7590

03/01/2004

Richard P Berg  
Ladas & Parry  
5670 Wilshire Boulevard  
21st Floor  
Los Angeles, CA 90036

EXAMINER

NORRIS, TREMAYNE M

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/639,671

Applicant(s)

CHOO, TSE HUONG

Examiner

Tremayne M. Norris

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The reference number 209 is used twice to refer to the physical layer and the private key database on pages 2 and 3.

Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "209" has been used to designate both the physical layer and private key database. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 6, 14-16 objected to because of the following informalities: All reference numbers in claims 6,14-16 are not consistent with what is shown in the drawings and disclosed in the specification. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16-19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 16-19 recites the limitation "encryption means". There is insufficient antecedent basis for this limitation in the claim.

6. Claims 20-25 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "ones" in claim 20 is a relative term which renders the claim indefinite. The term "ones" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not understood by the examiner as to what the term "ones" is exactly referring to.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-17,26,27 rejected under 35 U.S.C. 102(e) as being anticipated by Fletcher et al (US pat 6,363,477).

Regarding claim 1, the applicant's own prior art admission teaches a method of processing encryption data in a computing entity said method characterized by comprising steps of:

assigning a memory means of said computing entity into a plurality of memory areas (col.8 lines 3-25);

receiving encrypted data (fig.3; col.9 lines 27-33);

storing said encrypted data in a first memory area of said computing entity, said first memory area assigned for use by a kernel code of an operating system of said first computing entity (fig.3; col.21 lines 21-22);

writing said encrypted data stored in said first memory area into a second memory area associated with said computing entity (fig.4; col.21 lines 23-28);

decrypting said encrypted data stored in said second memory area (col.10 lines 1-10; col.11 lines 15-18); and

writing said decrypted data from said second memory area to said first memory area (col.21 lines 23-28).

Regarding claim 2, Fletcher et al teach a method as claimed in claim 1, wherein said first memory area is logically distinct from said second memory area (fig.3; col.8 line 53 thru col.9 line 4).

Regarding claim 3, Fletcher et al teach a method as claimed in claim 1, wherein said first memory area is configured to contain code of said operating system (col.8 line 61 thru col.9 line2).

Regarding claim 4, Fletcher et al teach the method as claimed in claim 1, wherein said second memory area is not used for storage of code of a kernel of said operating system (fig.3; col.8 line 53 thru col.9 line 4).

Regarding claim 5, Fletcher et al teach the method as claimed in claim 1, wherein said step of decrypting said encrypted data stored in said second area is carried out by an internet security protocol program resident in said second memory area (col.10 lines 1-10; col.11 lines 15-18).

Regarding claim 6, Fletcher et al teach a method of processing encryption data in a computing entity said method characterized by comprising steps of:

assigning a memory means of said computing entity into a plurality of memory areas (col.8 lines 3-25);

storing decrypted data in a first said memory area of said plurality of memory areas, said first memory area being assigned for use by a kernel code of an operating system of said first computing entity (col.21 lines 19-21);

writing said stored data into a second memory area of said plurality of memory areas associated with said first communicating entity (fig.4 col.21 lines 23-28);

encrypting said data stored in said second memory area (col.10 lines 1-10; col.11 lines 15-18); and

writing said encrypted data from said second memory area to said first memory area (fig.4 col.21 lines 23-28).

Method claims 7-9 are substantially equivalent to method claims 2-4 respectively, therefore claims 7-9 are rejected because of similar rationale.

Regarding claim 10, Fletcher et al teach a method as claimed in claim 8, further comprising the step of redirecting said encrypted data from said operating system in said first memory area to an encryption/decryption stack resident in said second memory area (fig.4; col. 8 lines 61-65; col.9 line 63 thru col.10 line 10; col.11 lines 15-18; col.10 lines 30-34).

Regarding claim 11, Fletcher et al teach a method as claimed in claim 9, comprising the step of directing said data to said second memory area from said first memory area (col.9 lines 63-67; col.10 lines 30-34; col.21 lines 22-28).

Regarding claim 12, Fletcher et al teach a method as claimed in claim 6, wherein said step of encrypting said data stored in said second memory area is carried out by an internet protocol security program stored in said second memory area (col.10 lines 1-10; col.11 lines 15-18).

Regarding claim 13, Fletcher et al teach a method of processing encrypted data in a computing entity, said computing entity comprising;

a processor; and

a memory means (col.8 lines 3-25),

wherein said memory means is divided into first and second memory areas, wherein said first memory area contains code of an operating system of said computer entity, said method comprising the steps of (fig.4 col.8 line 61 thru col.9 line 2):

receiving an encrypted data packet (fig.3; col.9 lines 27-33);

processing said data packet according to at least one packetization protocol of said operating system in said first memory area (fig.3; col.8 line 61 thru col.9 line 2);

outputting said data packet to said second memory area (col.9 lines 63-67; col.10 lines 30-34; col.21 lines 22-28);

processing said data packet according to a decryption algorithm in said second memory area (col.10 lines 1-10; col.11 lines 15-18); and



returning said processed data packet to said operating system in said first memory area (col.9 lines 63-67; col.10 lines 30-34; col.21 lines 19-28).

Regarding claim 14, Fletcher et al teach a digital computer configurable for transmitting digital data across a communications network, said digital computer comprising;

at least one microprocessor unit (col.8 lines 3-9);

a memory means, wherein said memory means is logically sub divided into at least a first memory area and a second memory area and characterized by further comprising (fig.4);

a redirection means for writing data from said first memory area to said second memory area and from said second memory area to said first memory area (fig.4; col. 8 lines 61-65; col.9 line 63 thru col.10 line 10; col.11 lines 15-18; col.10 lines 30-34);  
and

encryption means logically located within said second memory area, said encryption means configurable for encrypting said digital data (col.10 lines 1-10; col.11 lines 15-18).

Regarding claim 15, Fletcher et al teach a digital computer configurable for receiving digital data transmitted across a communications network, said digital computer comprising:

at least one microprocessor unit (col.8 lines 3-9);

a memory means, wherein said memory means is assigned into at least a first memory area and a second memory area and characterized by further comprising (fig.4);

a redirection means for writing data from said first memory area to said second memory area and from said second memory area to said first memory area (fig.4; col. 8 lines 61-65; col.9 line 63 thru col.10 line 10; col.11 lines 15-18; col.10 lines 30-34);  
and

decryption means logically located within said second memory area for decrypting data stored in said second memory area, said decryption means being configurable for decrypting said data (col.10 lines 1-10; col.11 lines 15-18).

Regarding claim 16, Fletcher et al teach a digital computer as claimed in claim 15, wherein said redirection means comprises;

a redirection layer (fig.4; col.8 lines 61-65); and

a port for interfacing said redirection layer and said encryption means (col.9 lines 63-67; col.10 lines 30-34).

Regarding claim 17, Fletcher et al teach a digital computer as claimed in claim 15, wherein said encryption means logically located within said second memory area comprises:

an internet protocol security stack (col.10 lines 1-10; col.11 lines 15-18);

and

a database configurable to contain key data for encrypting said data (col.11 lines 12-30).

Regarding claim 26, Fletcher et al teach a method of encryption processing a plurality of packet data streams between first and second layers of a communications protocol stack, said method comprising the steps of:

receiving a first said data packet stream from a first layer of said protocol stack in a first memory area (fig.3; col.9 lines 27-33);

sending said data packet stream to a first compartmented memory area (fig.4; col.10 lines 30-40; col.11 lines 12-38);

running an encryption process on said first data packet stream in said first compartmented memory area for encryption or decryption of said data packet stream (col.10 lines 1-10; col.11 lines 12-18);

returning said processed data packet stream from said first compartmented memory area to a second layer of said communications protocol stack in said first memory area (col.10 lines 30-35; col.21 lines 23-28);

receiving a second packet data stream from a said first or second layer of said communications protocol stack in said first memory area (fig.3; col.9 lines 27-33);

sending said second data packet stream to a second compartmented memory area (fig.4; col.10 lines 30-40; col.11 lines 12-38);

encryption processing said second data packet stream in said second compartmented memory area for encryption or decryption of said data packet stream (col.10 lines 1-10; col.11 lines 12-18); and

returning said processed second packet data stream to the other one of said first or second said layers of said communications protocol stack in said first memory area (col.10 lines 30-35; col.21 lines 23-28),

wherein said first compartmented memory area is assigned to said first process, said second compartmented memory area is assigned to said second process, and said first memory area is assigned to an operating system of said computing entity (fig.4; col.10 lines 30-40; col.11 lines 12-38).

Regarding claim 27, Fletcher et al teach the method as claimed in claim 26, comprising the step of running a plurality of processes in a said compartmented memory area, for processing a single said packet data stream (fig.4; col.10 lines 30-40; col.11 lines 12-38).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tremayne M. Norris whose telephone number is (703) 305-8045. The examiner can normally be reached on M-F 7:30AM-5:00PM alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703) 305-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tremayne Norris

February 18, 2004

*Matthew Smithers*  
MATTHEW SMITHERS  
PRIMARY EXAMINER  
*Art Unit 2137*